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University of Pittsburgh Bulletin

ANNOUNCEMENT SERIES

THE SCHOOL OF DENTISTRY

1914-1915

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University of Pittsburgh Bulletin

THE SCHOOL OF DENTISTRY

For further information address
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University of Pittsburgh, Grant Boulevard
PITTSBURGH, PA.

BOARD OF TRUSTEES

EX-OFFICIO

THE GOVERNOR OF THE COMMONWEALTH OF PENNSYLVANIA
THE MAYOR OF THE CITY OF PITTSBURGH
THE CHANCELLOR OF THE UNIVERSITY

CLASS 1. TERM EXPIRES JUNE, 1916

DATE ELECTED		
1890	BENJAMIN THAW, A.B.	Pittsburgh
1904	WILLIAM LUCIEN SCAIFE, PH.B., C.E.	Pittsburgh
1895	ANDREW CARNEGIE, LL.D.	New York
1898	JOSIAH COPLEY THAW, B.S.	Pittsburgh
1906	MAITLAND ALEXANDER, D.D.	Pittsburgh
1907	JOSEPH CLIFTON TREES, M.E.	Pittsburgh
1908	WALTHER RIDDLE, PH.D.	Pittsburgh
1909	EDWARD VOSE BABCOCK	Pittsburgh
1912	JOHN KINLEY TENER	Harrisburg
1914	HENRY CLAY MCELDOWNEY	Pittsburgh

CLASS 2. TERM EXPIRES JUNE, 1917

1882	RT. REV. CORTLANDT WHITEHEAD, D.D., LL.D.	Pittsburgh
1889	WILLIAM JACOB HOLLAND, PH.D., LL.D.	Pittsburgh
1891	JOHN ALFRED BRASHEAR, SC.D., LL.D.	Pittsburgh
1902	GEORGE HUBBARD CLAPP, PH.B.	Pittsburgh
1904	JOSEPH LEONARD LEVY, D.D.	Pittsburgh
1906	HOWARD HEINZ, A.B.	Pittsburgh
1907	ANDREW JACKSON KELLY, JR.	Pittsburgh
1907	SAMUEL ALFRED TAYLOR, C.E.	Pittsburgh
1910	WILLIAM PENN SNYDER	Pittsburgh
1914	WALLACE HURTTE ROWE	Pittsburgh

CLASS 3. TERM EXPIRES JUNE, 1915

1892	CYRUS BLACK KING, M.D.	Pittsburgh
1893	ANDREW WILLIAM MELLON, A.M.	Pittsburgh
1900	JAMES HENRY LOCKHART, A.B.	Pittsburgh
1903	THOMAS HARLAN BAIRD MCKNIGHT	Pittsburgh
1903	THOMAS PATTERSON, A.M.	Pittsburgh
1909	HON. GEORGE WILKINS GUTHRIE, A.M., LL.D.	Pittsburgh
1911	JOHN KNOX MCCLURKIN, D.D.	Pittsburgh
1912	JOHN CRAWFORD WALLACE, PHARM.D.	New Castle
1914	ALFRED REED HAMILTON	Pittsburgh
1914	GEORGE STURGES OLIVER	Pittsburgh

HISTORY

The University of Pittsburgh is the oldest institution of learning with one exception (The University of Nashville), in the United States, west of the Appalachian Mountain range. It came into being as the Pittsburgh Academy in the year 1786, and was formally incorporated by Act of Legislature in February, 1787. It was re-incorporated as the Western University of Pennsylvania in February, 1819. It has educated in whole or in part many thousands of the young men of Western Pennsylvania and adjacent States, and its alumni have filled many of the most distinguished offices in the gift of the Commonwealth and the nation.

The growth of the institution has been rapid in more recent years, and the University is today the most largely attended institution of learning in its class in the State of Pennsylvania, with the single exception of its sister institution—the University of Pennsylvania, located in Philadelphia.

SUMMARY OF STUDENTS

in the various schools of the University.

SESSION OF 1913-1914

Graduate School	88
The College	462
School of Engineering	230
School of Mines	76
School of Education	740
School of Economics	494
School of Law	125
School of Medicine	149
School of Pharmacy	232
School of Dentistry	212
Total number registered	2808

CALENDAR FOR 1914-1915

1914

September 1.....Tuesday—Infirmary opens.
September 28.....Monday—Winter Term begins 9 A. M.

Recess from December 23 to January 2, both inclusive.

1915

June 1.....Tuesday—Spring Term begins.
June 13.....Sunday—Baccalaureate Sermon.
June 15.....Tuesday—Dental Alumni Day.
June 16.....Wednesday—Commencement.

FACULTY

Samuel Black McCormick, D.D., LL.D., Chancellor.

H. Edmund Friesell, B.S., D.D.S., Dean, Professor of Operative Dentistry.

Owen Lovejoy Hertig, A.M., D.D.S., Professor of Dental Pathology and Therapeutics and Operative Clinician.

Harry Stewart Haslett, D.D.S., Professor of Prosthetic Dentistry, Anæsthesia and Extracting.

John Stewart Ashbrook, D.D.S., Professor of Dental Anatomy, Dental Medicine, and Comparative Dental Anatomy.

Stewart Leroy McCurdy, A.M., M.D., Professor of Anatomy, Oral and General Surgery.

Clement Russell Jones, M.D., Professor of General Pathology, Materia Medica and Therapeutics.

William Lincoln Fickes, D.D.S., Professor of Dental Ceramics, Dental History and Oral Hygiene.

Frederick Charles Friesell, D.D.S., Professor of Histology and Bacteriology.

Albert Floyd Judd, Pharm.D., Professor of Physics, Chemistry and Metallurgy.

John Flocker Biddle, D.D.S., Professor of Orthodontia and Radiography.

Robert Zugsmith, D.D.S., Professor of Physiology and Embryology, and Lecturer on Crown and Bridge Work.

DEMONSTRATORS AND ASSISTANTS

Cecil Oliver Booth, D.D.S., Prosthetic Dentistry, Crown and Bridge Work.

Leslie Waddill, D.D.S., Dental Anatomy.

Andrew Momjan Martin, D.D.S., Clinical Dentistry.

Patrick Vincent McParland, D.D.S., Operative Dentistry, Anesthesia and Extracting.

Lucius Wallace Ohl, D.D.S., Operative Technics.

Albert Leslie Evans, D.D.S., Operative and Prosthetic Technics.

Edward C. Shryock, D.D.S., Clinical Dentistry.

Elmer Weger, D.D.S., Clinical Dentistry.

Samuel Dwight Emrick, D.D.S., Prosthetic Dentistry.

John C. Hipple, D.D.S,. Clinical Dentistry.

Max Neal, D.D.S., Clinical Dentistry.

Allison Luther Lewis, D.D.S., Prosthetic Dentistry, Crown and Bridge Work.

Thomas Zwingli Plank, D.D.S., Prosthetic Dentistry.

Arthur Bowman French, D.D.S., Clinical Dentistry.

Hurst David Fonda, D.D.S., Clinical Dentistry.

William Emery Coulson, D.D.S., Clinical Dentistry.

Willis Glenn Phillips, D.D.S., Prosthetic Dentistry, Crown and Bridge Work.

Arthur Bowman French, D.D.S., Librarian.

Dickson Lee Singleton, D.D.S., Anatomy.

Edgar Thomas Chatham, M.D., Anatomy.

Wilbert McKee, D.D.S., Clinical Dentistry.

GENERAL INFORMATION

The new building for the School of Dentistry was erected on the University Campus, and dedicated June 18th, 1912. It has the finest location for a dental school in the United States, is perfectly arranged for its special purposes, is devoted entirely to the teaching of dentistry, and has been thoroughly fitted out with the very latest and most improved equipment and teaching appliances.

The laboratories are supplied with electric lathes, compressed air, gas and electricity. The Infirmary contains sixty chairs, each with fountain cuspidor, electricity, gas and compressed air. Steel operating tables, and steel lockers are provided.

Complete arrangements have been made for the treatment of oral surgery cases, and private rooms have been provided for anesthesia, extracting, orthodontia, etc. There is a separate dissecting room for women students.

During the past year more than sixteen thousand patients were treated in the Infirmary. In addition to this abundant clinic which affords an invaluable experience to the student, outside clinics have been established at the various homes, asylums, and penal institutions of the county, one of which has over twelve hundred inmates, and senior students who show marked ability are assigned to this special work, where they have an exceptional opportunity to gain valuable experience in the personal management of interesting cases.

Senior students who have passed the required grades and have otherwise complied with the rules of this School are recommended by the Faculty to the Board of Trustees of the University for their degree, the same being conferred by the Chancellor.

Diplomas are signed by the Faculty of Dentistry, the Chancellor, and the President and Secretary of the Board of Trustees.

A candidate for the degree of Doctor of Dental Surgery must have attended three full courses of lectures in some reputable dental college, the last one of which must be in this School. He must be twenty-one years of age, and of good moral character.

REQUIREMENTS FOR ADMISSION

Note. The School of Dentistry is a member of the National Association of Dental Faculties, and conforms to all its regulations.

The minimum requirements for admission to the Dental School are a regulation four-year high school course or its equivalent.

All dental students are required by the Pennsylvania State Law to secure Dental Students' Certificates from the Bureau of Professional Education of the State. The Pittsburgh representative of the Bureau is Professor C. B. Smathers, Room 101, State Hall, University of Pittsburgh.

Information in regard to the procuring of these certificates may be had by applying to the Dean of the Dental School.

Entrance examinations are held in September, February and June.

Students, to obtain credit for a full term, must be and remain in attendance until the close of the session.

Students presenting credentials from reputable schools, medical, scientific or literary, for work done in branches taught in this school, and covering these branches fully or in clearly definite part, will be credited for such work, provided that such credits shall amount to as much as one-half year.

HOW TO REACH THE SCHOOL

From Pittsburgh's business center take any car running out Forbes Street or Fifth Avenue to Bouquet Street; the School of Dentistry is located directly north on Bouquet Street; or take an East Liberty via Center Avenue car, get off at Allequippa Street, and walk around the brick roadway, keeping to the left.

BOARD AND LODGING

There are no residence halls for the use of the students, but board and lodging may be obtained from private families who live near the School in the Oakland, Bellefield and Herron Avenue districts. Students may apply at the Office of the Housing Committee of the University for a list of approved living quarters.

TELEPHONE AND MAIL ADDRESS

Address all letters regarding catalogues, matriculation, entrance requirements, examinations, etc., to the Dean of the School of Dentistry, University of Pittsburgh, Pittsburgh, Pa.

The School of Dentistry is reached through the general University Exchange, Schenley, 3300. Private lines to the various departments, including the Dean's office.

COURSES OF INSTRUCTION

Freshman Year

*1. Operative Dentistry—Lectures and Technic Course.
2. Prosthetic Dentistry—Lectures and Laboratory.
6. Dental Anatomy—Lectures and Technic Course.
9. Anatomy.
10. Dissecting.
12. General Chemistry and Physics—Lectures and Laboratory.
13. Materia Medica.
17. Physiology and Embryology.
18. General Histology—Lectures and Laboratory.

Junior Year

1. Operative Dentistry—Lectures and Technic Course.
2. Crown and Bridge Work—Lectures and Technic Course.
4. Prosthetic Dentistry—Lectures and Laboratory.
7. Comparative Dental Anatomy.
9. Anatomy.
10. Dissecting.
11. Principles of Surgery.
12. Inorganic Chemistry—Lectures and Laboratory.
14. General Pathology and Therapeutics—Lectures and Laboratory.
17. Physiology.
18. Dental Histology—Lectures and Laboratory.
22. Oral Hygiene—Lectures and Clinic.

Senior Year

1. Operative Dentistry.
3. Dental Pathology and Therapeutics.
5. Anæsthesia and Extracting.
8. Dental Medicine.
9. Oral Surgery.
12. Organic Chemistry—Lectures and Laboratory.
12. Metallurgy—Lectures and Laboratory.
13. Materia Medica.
15. Orthodontia—Lectures and Technic Course.
16. Dental Ceramics—Lectures and Technic Course.
19. Bacteriology—Lectures and Laboratory.
20. Electro-Therapeutics.
21. Dental Jurisprudence.
22. Oral Hygiene.
23. Dental History, Ethics and Economics.
1. Infirmary Practice.
3. Special Operative Clinics.

*Numbers refer to courses, details of which are given in subsequent pages.

Thaw Hall, School of Engineering | Proposed Administration Building | State Hall, School of Mines

CORNER GROUP OF BUILDINGS

School of Dentistry, University Campus

DEPARTMENTS OF INSTRUCTION

1. OPERATIVE DENTISTRY

Professor H. E. Friesell

The principles and practice of Operative Dentistry are taught by the application of systematic procedures to operations in classes, so that a correct judgment may be formed as to their application in particular operations.

The same method of instruction will be applied by clinical instructors, the classes being divided into sections.

Modern and accepted methods will be exemplified.

Instruments.—Each student, before beginning his work, is required to procure the instruments necessary for his use, a list of which will be furnished. Each Senior student is required to have a dental engine.

All materials used upon patients, including medicines, napkins, rubber dam, etc., furnished by the School.

OPERATIVE TECHNICS

Professor Friesell, Dr. Ohl, Dr. Waddill

First Year — 1 Lecture, 3 hours Laboratory

The object of this course is to familiarize the student with the organs to be operated upon, together with the principles that underlie all operations upon the teeth, and to provide a systematic course in manual training.

Students will have before them teeth of each denomination, so that right conceptions of form and the relations of the tissues may be studied.

Systematic nomenclature will be taught.

Cutting of sections of each tooth will be practiced.

The surface outlines, markings, and the comparative size and location of the internal cavities of each tooth will be considered.

Professor Friesell, Dr. Ohl, Dr. Evans, Dr. Shryock, Dr. Weger

Second Year — 2 Lectures, 6 hours Laboratory

This course includes: Sectioning of teeth through various surfaces in order to gain a knowledge of the inception and progress of caries; the preparation of cavities of each class in enlarged plaster models; preparing cavities in extracted teeth and celluloid tooth forms, and filling the same with gold; the use of the various forms of gold and other filling materials; opening, enlarging and filling root canals; bleaching, scaling, and as far as possible all operative procedures in detail; instruments and instrumentation.

Professor Friesell

Third Year — 2 Lectures

A review of the technical procedures taught in the preceding years will be followed by a course of lectures and recitations covering the whole field of the principles and practice of Operative Dentistry.

The Operative Clinic is open daily from ten to four o'clock throughout the year, except during the months of July and August, and is in charge of the professor and demonstrators of operative and clinical dentistry. The principles learned in the technic course are carried out in the infirmary, and this course is made as much like an actual practice as possible.

2. CROWN AND BRIDGE WORK

Dr. Zugsmith, Dr. Lewis

Second Year — 1 Lecture, 3 hours Laboratory

A complete course in crown work, including the preparation of roots and the making of all the acceptable styles of crowns, is covered.

Bridge work, both fixed and removable; the repairing of crowns and bridges, and the whole subject of gold inlays are treated in the Senior year. Baked crowns and porcelain bridges are covered in the department of Ceramics.

3. DENTAL PATHOLOGY AND THERAPEUTICS

PROFESSOR HERTIG, DR. BIDDLE

THIRD YEAR — 1 Lecture, 2 hours Clinic

Lectures from this chair will comprise instruction in the principles of dental pathology, indication and elements of disease, pathological dentition, pathological eruptions, dental caries and its results, odontalgia, periodontitis alveolar abscess, necrosis, pyorrhea alveolaris, and all the various diseases of the teeth and associate parts, with the therapeutic agents and materials used in the treatment and correction of the same.

Private operative clinics, covering every practical operation, will be given before the Senior class in sections.

4. PROSTHETIC DENTISTRY

PROFESSOR HASLETT, DR. BOOTH, DR. EMRICK, DR. LEWIS, DR. PLANK, DR. PHILLIPS

FIRST YEAR — 1 Lecture, 12 hours Laboratory and Demonstration

The course will cover Prosthetic Technics, followed by the preparation of the mouth for dentures, impressions, methods of constructing various bases, the treatment of metals and alloys which may be of value in dentistry, and the study of temperaments in their relation to the teeth and their arrangement.

SECOND YEAR — 1 Lecture, 12 hours Laboratory and Demonstration

Continuous gum work, artificial vela, methods of making and adjusting appliances for fracture of the maxillæ, and practical work in the clinic.

5. ANÆSTHESIA AND EXTRACTING

PROFESSOR HASLETT, DR. MCPARLAND, DR. OHL, DR. SHRYOCK

THIRD YEAR — 1 Lecture and Demonstration

Anæsthesia will be taught by lectures, and by demonstrations in the infirmary; will cover the whole field of local and general anæsthetics, the use, complications and dangers of each, and the means of preventing and treating accidents arising from their use.

Particular attention will be given to difficult cases of extraction, impacted teeth, etc., and the treatment of hemorrhage and such other accidents as may accompany extracting. Each student will be required to administer anæsthetics, and to extract, under the personal supervision of the teachers of this subject.

6. DENTAL ANATOMY ,

Professor Ashbrook and Dr. Waddill

First Year — 1 Lecture, 2 hours Laboratory

This course will consist of the drawing, modeling and carving of the various teeth, and the study of their surfaces, ridges, fossæ, grooves, etc.

Systematic nomenclature; the importance of the proper contact of approximating teeth; normal occlusion, and the relation of the teeth to the soft tissues receive thorough consideration.

7. COMPARATIVE DENTAL ANATOMY

Professor Ashbrook

Second Year — 1 Lecture

In this division of general anatomy the student will be taught comparative anatomy by the study of animal life, beginning with the lowest forms, and leading up to the highest in regular gradation; taking the teeth *seriatim* from the lowest types, and showing their progressive evolution from simple to complex forms, demonstrated by skulls, models, charts and stereopticon.

This subject is a strong factor in emphasizing the importance of the law of occlusion.

8. DENTAL MEDICINE

Professor Ashbrook

Third Year — 1 Lecture

This course will cover fully all remedial agents that belong properly to the special field of dental medicine, and will discuss briefly the most important general remedies that may be available in dental diseases and emergencies.

9. ANATOMY

Professor McCurdy

First Year — 1 Lecture, 1 Quiz

Instruction in this department consists of lectures and demonstrations of the anatomy of the entire body, special lectures being given upon regions of the face, head and neck.

The course is divided, osteology and syndesmology being treated previous to the holidays, and the muscles and blood-vessels after the holidays.

SECOND YEAR · 1 Lecture

Surgical and Topographical Anatomy of face receives special attention, as the study of the various parts is considered.

Ante-holiday, Nervous System; Post-holiday, Organs of Special Sense and Viscera.

10. PRACTICAL ANATOMY

PROFESSOR MCCURDY

FIRST AND SECOND YEARS 2 hours daily during period of dissecting

Students are required to make a complete dissection during the Freshman and Junior years.

To facilitate the study of Anatomy, boxes containing a half skeleton are given the student upon a deposit of $5.00, returnable upon return of box and the contents as it was received.

11. GENERAL AND ORAL SURGERY

PROFESSOR MCCURDY

SECOND YEAR 1 Lecture, 1 Quiz

The Junior course covers: general principles, including repair; acute infections and the results; surgical fevers; erysipelas; shock; general diagnosis; diseases of the vascular systems; asepsis and antisepsis; anæsthetics, and principles in operations, wounds and emergencies.

THIRD YEAR 1 Lecture

Includes: Diseases of the structures of the oral cavity, the antrum and other cavities; diseases and injuries of the gums, alveolar process and tongue; diseases, injuries and neuroses of the face; congenital defects of the face and mouth; diseases of bone; tuberculosis; venereal diseases; diseases of the salivary glands; neuralgia; tumors; ankylosis; fractures; dislocations; general conditions producing oral manifestations, and oral diseases producing general symptoms; plastic surgery, and prosthesis.

Operations in hospitals and clinical cases at the School will give the student an opportunity to make a practical study of cases.

A course in Physical Diagnosis is given in order that graduates of this School may be able to make an intelligent examination of the heart and lungs preparatory to the administration of an anæsthetic.

12. CHEMISTRY AND PHYSICS

PROFESSOR JUDD

The department of Chemistry includes general physics, general and inorganic chemistry, metallurgy, organic chemistry and chemistry of anæsthetics. The teaching is by lectures, recitations and laboratory practice, continuous throughout three years.

GENERAL PHYSICS

First Year 3 hours

Properties of matter, theory of constitution of matter, states of matter, physical measurements, metric system of measures, volume, mass and density, specific gravity, force and equilibrium, hydraulics, hydrostatics and pneumatics, motion, velocity and acceleration, composition and resolution of forces, Newton's laws, gravitation, work, energy and power, machines, temperature and thermometry, specific heat, effects of heat, sound, radiant energy, light, electrostatics, electro-kinetics, sources of electric current, properties of electric current, uses of electric currents, dental applications of electricity.

GENERAL AND INORGANIC CHEMISTRY

Second Year 3 hours

Lectures, recitations and laboratory practice. The course is begun with a brief review of the history of the subject, the scope of the science, and its relation to the other physical sciences and to dentistry, with a consideration of the notation and nomenclature employed in modern chemistry. When this preliminary work has been accomplished, the important elementary substances are taken up in order of their natural classification, and separately lectured upon. Contemporaneous with the lectures, every member of the class receives laboratory practice, which includes the preparation (when possible) of each element in the free state, the study of its leading characters, and of its characteristic reactions. When the elements have all received consideration in this manner the class is given a brief drill in qualitative analysis, with practice in the identification of inorganic chemical substances in simple mixtures.

METALLURGY

Third Year 3 hours

Lectures, recitations and laboratory practice. The work is carried on with lectures and recitations from lessons assigned from the text-book. After the general principles of the subject have been reviewed, the manufacture and properties of amalgams and alloys receive consideration, followed by a study of the individual metals and their uses and application in dentistry, with laboratory practice in identification of metals, and in the manufacture and assay of alloys and amalgams.

ORGANIC CHEMISTRY AND CHEMISTRY OF ANÆSTHETICS

Lectures, recitations and laboratory practice. The lectures and recitations will be devoted to a consideration of the general principles of the chemistry of the Carbon Compounds, their classification and uses. In the laboratory the student is expected to prepare a series of the more important members, and to study their principal reactions and means of identification.

13. MATERIA MEDICA

PROFESSOR JONES

FIRST YEAR — 1 Lecture

During the early portion of the Freshman year special attention will be given to the definition of words and phrases, their derivation and signification, with reference to their use in Materia Medica, Therapeutics and Pharmacy. After this, the most important drugs in general use will be taken up and considered separately, with reference to their physiological effects, doses, methods of administration, their toxic effects, antidotes, etc. The same method of teaching is continued through the course.

THIRD YEAR — 1 Lecture

A review of the first year's work in Materia Medica and Therapeutics, and a fuller consideration of these subjects as applied to dentistry.

14. GENERAL PATHOLOGY AND THERAPEUTICS

PROFESSOR JONES

SECOND YEAR — 1 Lecture, 1 hour Laboratory

A thorough knowledge of General Pathology is necessary before the more advanced branches or special branches can be properly understood. Hence the object of teaching in this department is to unfold to the student the fundamental principles of the subject, and bring them within his comprehension; also to increase his interest in the study of the subject, to obtain a knowledge of the inception and course of pathological processes, their changes and effects upon the organism as manifested in abnormal conditions.

15. ORTHODONTIA

Professor Biddle

Third Year — 1 Lecture and Demonstration

Normal occlusion, the etiology and classification of malocclusion, physiology of tooth movement, character of tissues involved, modern methods and appliances for the correction of malposed teeth, and correction as related to the harmony of the facial lines, facial art, are all included in the instruction in this branch.

The technical course consists of free-hand soldering, soldering and adjusting combination appliances, and making of accurate models. The work is illustrated by stereopticon, charts and models, and demonstrated by clinical cases.

16. DENTAL CERAMICS

Professor Fickes and Dr. Biddle

Third Year — 1 Lecture, 12 hours Laboratory

Instruction in this course will consist of one lecture each week, supplemented by demonstrations, in detail, of practical operative and prosthetic porcelain work.

The more important subjects are: The history and development of the porcelain art; the composition, characteristics and manipulation of porcelain compounds; the source of heat employed; the use and care of furnaces, and descriptions and demonstrations of all the more important methods of inlay, crown and bridge and continuous gum work.

17. PHYSIOLOGY AND EMBRYOLOGY

Professor Zugsmith

First Year — 1 Lecture, 1 Quiz

The teaching in this branch will consist of lectures, quizzes and practical demonstrations.

In the lectures it will be the aim of the teaching to continually keep in mind the fact that the normal condition must be understood before the abnormal can be known. The student will be taught, as far as possible, to form his conclusions from facts of personal observation, and from those given to him by the demonstrations of the professor.

Each and every structure of the body will be shown, its function and its relation to every other structure. Special attention will be given to the subjects of blood, circulation, digestion and the nervous system, where these are so closely identified with important laws of interest to the dental student.

The lectures will be supplemented by quizzes, and each student will be required to pass an examination in all subjects which have been taught.

SECOND YEAR — 1 Lecture, 1 Quiz

Muscle and nerve physiology, production of the voice, central nervous system, brain, spinal cord, reproductive organs, embryology and development are considered.

18. HISTOLOGY

PROFESSOR F. C. FRIESELL, DR. WEGER

FIRST YEAR — 1 Lecture and Laboratory

The course in Histology consists of a systematic presentation of the subject of the minute anatomy of the various parts of the body, partly by lectures, and more especially by the practical study of actual specimens under the microscope. The methods of preparation of microscopical specimens are presented and practiced in the laboratory.

The work in microscopy is preparatory to the subject of Histology, and consists of a course of lectures upon the construction and manipulation of the compound microscope, with practice by the student in preparation of temporary and permanent mounts, including the technique of embedding, sectioning and staining both of hard and soft tissues.

The laboratory is supplied with microscopes and all the apparatus necessary to render the student familiar with the subject of microscopical technique, as well as the normal histology of the various tissues and organs of the body. Students are required to mount at least twenty-five slides.

DENTAL HISTOLOGY

PROFESSOR F. C. FRIESELL, DR. WEGER

SECOND YEAR — 1 Lecture and Laboratory

Lectures on Dental Histology embrace the origin, development, tissues and the functions of the teeth, and the development of the superior and inferior maxillary bones, the dental tissues—enamel, dentine, cementum, peridental membrane, periosteum, the tooth pulp, the other soft tissues of the mouth, and a short course in embryology of the dental structures.

19. BACTERIOLOGY

PROFESSOR F. C. FRIESELL, DR. WEGER

THIRD YEAR — 1 Lecture and Laboratory, half of First Semester

a. The student is taught the principles of General Bacteriology; a knowledge of the preparation of the media for cultivating bacteria; the morphological, biological and physiological attributes.

b. In oral bacteriology, the subjects of morphology and biology of the micro-organisms of the teeth are carefully considered together with their relation to caries of the teeth and oral diseases.

PATHOLOGICAL AND BACTERIOLOGICAL LABORATORY

PROFESSOR F. C. FRIESELL, DR. WEGER

THIRD YEAR — 1 hour, half of First Semester

Laboratory work in pathology and bacteriology is carried on. Slides of pathological conditions, including tumors, diseases of the liver, kidneys, lungs, etc., are prepared.

The bacteriological laboratory is equipped with high-power microscopes containing oil-immersion lens, Abbe condenser and iris-diaphragm. It also contains incubator, dry and moist sterilizers, and every variety of apparatus known to modern bacteriology.

Students are taught rapid staining and mounting of sections, principles of sterilization, method of isolating bacteria, technique of making plates, study of colonies, staining, mounting and examination of the more common varieties of bacteria, with special reference to bacteria found in the mouth. Opsonins, anti-toxins, Widal test for typhoid fever and tests for efficiency of various germicides and antiseptics are practically demonstrated.

20. ELECTRICITY—X-RAY

PROFESSOR BIDDLE

THIRD YEAR — 1 Lecture, part of Second Semester

X-Ray and Electricity, as applied to dentistry, have been added to the list of branches taught in the School. The students will be taught the uses of radiography, and will be given instruction in preparing and developing plates after they are made. The course will cover instruction in electrophysics, electrophysiology and electrotherapeutics, and the control of electricity as a motor power.

21. DENTAL JURISPRUDENCE

Professor Fickes

Third Year — 1 Lecture, part of Second Semester

The course of lectures in this branch will cover the subjects of dental witnesses, rights and liabilities of dental practitioners, including the law of crimes, negligence and contracts, as applied to the practice of the profession, together with a discussion of the history of dental legislation in general, and of the statutes in force in Pennsylvania regulating the practice of dentistry.

The aim will be to furnish a correct idea of the general principles of the law as applied to the practice of dentistry; and to present the subject with a view to making it of practical worth. Students will be required to keep concise, but complete, notes of the lectures.

22. ORAL HYGIENE

Professor Fickes

Oral Hygiene embraces a knowledge of the factors and conditions which produce or assist in producing disease, local or general, which arise from perverted function or from unsanitary conditions in the oral cavity, as well as the best means of preventing such diseases.

This course will consist of lectures on all of the most important subjects relating to the prevention of diseases of the oral cavity, and of conditions in the oral cavity which are unfavorable to the general health.

23. DENTAL HISTORY, ECONOMICS AND ETHICS

Professor Fickes

The course in Dental History will cover the subject from the earliest times to the present; and will include biographies of noted and successful dentists and the factors which led to their success, as well as the record of the development of the art and science of dentistry.

The course in Dental Economics will embrace the business requirements for success in practice, including selection of a location, arrangement of an office, relations with patients, personal appearance and conduct, general business methods, fees, bookkeeping and records, self-development, etc.

Ethics primarily means conduct considered with reference to its good or bad results to self or to others. The course in Ethics considers, therefore, the dealing of the dentist with patients and the profession; consultations; the necessity of moral, mental and physical cleanliness and honesty in his dealings with his fellowman; unprofessional conduct, etc.

TEXT-BOOKS

Freshman Year—Anatomy, *Gray* or *Cunningham;* Dental Anatomy, *Black;* Physiology, *Ott* or *Kirkes;* Materia Medica and Therapeutics, *Stevens;* Dental Prosthesis, *Wilson;* Chemistry, *Bartley;* Dictionary, *Dorland* or *Gould;* Histology, *Radasch* or *Bailey.*

Junior Year—Operative Dentistry, *Black;* Oral Surgery, *McCurdy;* Dental Medicine, *Prinz* or *Buckley;* Metallurgy, *Hodgen;* Pathology, *McConnell;* Dental Histology, *Noyes.*

Senior Year—Dental Pathology and Therapeutics, *Burchard;* Bacteriology, *Pitfield;* Orthodontia, *Case.*

FEES

Matriculation (paid but once), $5.00. Term ticket, each year, $160.00. Minor fees: Freshman year, $15.00. Junior year $20.00. Senior year, $5.00. Graduation and Diploma, $15.00. Student activities, $5.00. Total of tuition and fees for each year, $185.00.

The amount charged for tuition includes an Athletic Fee, which entitles students to free admission to the athletic events under the control of the General Athletic Committee of the University.

A reduction of $5.00 on the Tuition Fee will be made, provided all fees are paid at the beginning of the term.

Fees are payable in two installments: $100.00 at the opening of the term in October, and no student is formally entered until such is paid; the remainder on or before January 15th. No student is permitted to enter upon final examinations at the close of the term without a ticket of admittance, which is evidence that all fees are paid, and that he has passed all previous examinations. Graduation fee is returnable to those who fail to pass.

According to the regulations of the School of Dentistry, no other fees returnable. Should the student discontinue his studies, any fee or fees paid will hold good for a subsequent course, but they are not transferable.

REQUIREMENTS FOR ADVANCEMENT IN COURSES

Students are graded on the work of the year as judged by the performance of their duties, including written and oral examination records. Minimum passing average in examination, 75 per cent.

Students who have done satisfactory work for any year will be advanced to the succeeding class.

Section of Operative Clinic

Operative Technic Class

A student whose work has not been satisfactory will, according to the judgment of the Faculty:

1. Continue with his class, for a limited time, conditioned in certain subjects,
2. Repeat the year in all branches,
3. Be enrolled as a special student, or
4. Be dropped from the course.

(Rule 4 may be applied at any time during the year.)

See also departmental rules for removal of conditioned work.

EXAMINATIONS

Examinations are held in the various branches taught, at stated periods during the term and at the close of the year.

Students of the Freshman and Junior classes below 60 in any study will be given the privilege of a second examination before the opening of the next winter term. A student may, however, be admitted to the class in advance if he be conditioned upon not more than two branches; but these conditions must be removed during the first semester. No student will be permitted to enter the second semester with any conditions.

GRADUATION

Candidates for the degree of Doctor of Dental Surgery must have attended three full courses of lectures in a recognized dental college, or its equivalent (as required by the rules of the National Association of Dental Faculties), the last of which must have been in this institution. They must be twenty-one years of age and of good moral character, and must bring before the professors of Operative and Prosthetic Dentistry such evidence of proficiency in practical dentistry as they may require.

REGULAR TERM

The regular winter term begins September 28th, 1914, and continues for eight months, or until June 1st, 1915.

STUDENTS MUST MATRICULATE BEFORE OCTOBER 10TH TO OBTAIN CREDIT FOR THE TERM.

Students who fail to enter their names on the matriculation book or make application for admission before October 10th may enter upon the payment of $75.00. No time credit can be given upon such attendance.

FALL AND SPRING TERMS

The Infirmary is open from September 1st to July 1st of the following year. During this time patients in abundance are furnished the students for practical work. During the Spring and Fall terms, the Senior and Junior classes have an opportunity to complete their requirements in practical work. During these courses daily clinics are given by the Professors or Demonstrators.

NOTES

Seats and laboratory privileges are assigned in order of matriculation.

The Faculty will be pleased to advise parents, when so desired, of the progress and general conduct of students.

Each student is required to supply himself with the specified outfit for laboratory work in histology and bacteriology.

Grades and cards are withheld from students who have not complied with the rules of the School.

For catalog and further information address Dr. H. E. Friesell, Dean, School of Dentistry, University of Pittsburgh.

SENIOR CLASS

Allan, Alex Malcolm	Turtle Creek
Astry, John W.	Salem, O.
Bates, Hurleigh Hile	Magnetic Springs, O.
Beacham, Earle DeWitt	Braddock
Beck, Francis Kenneth	Crafton
Biddle, Perry Arney	New Castle
Birkett, Lillian Ellen	East Liverpool, O.
Bock, Howard	Sharpsburg
Boss, William Orlo	Townville
Bracken, Edward Spear, Jr.	McKeesport
Briggs, Charles Culver	Newton Hamilton
Broadwater, Melvin Frost	Grantville, Md.
Brown, Samuel Conger	Pittsburgh
Buchanan, Benjamin Kamerer	Harrisville
Buchanan, William Gaylord	Harrisville
Butler, John Geary	Ellwood City
Carroll, Francis Joseph	Monongahela
Connelly, George Nox McCain	Pittsburgh
Coombe, Benjamin Clyde	Mingo Junction, O.
Custer, Russell Phillip	Stoyestown
Dickson, William DeLoss	Oakdale
Edwards, Clarence James	Pittsburgh
Everhart, Harry Watson	Sharon
Feringer, William Ellis	Porto Rico
Fulkerson, Daniel	Philadelphia
Gehlert, George Ambrose	Duquesne
Hazlett, Oscar Osbourne	Charleroi
Haslett, W. Clyde	Pittsburgh
Hayes, Carl Wallace	Butler
Hedrick, Mrs. O. R.	Wheeling, W. Va.
Henderson, Howard Brice	Kittanning
Hoag, Mark Rooney	Sayre
Horelick, Kussiel	Pittsburgh
Horrocks, James	Wilmerding
Hutchison, John	New Bethlehem
Jackson, William Fulton	New Castle
James, Clarence Burleigh	Charleroi
Jendrzeski, Leo Joseph	Carnegie
Keyser, Howard Franklin	Duquesne
Lacock, William Johnston	Pittsburgh

Levin, Benjamin	Pittsburgh
Long, George Leonard	Greensburg
Loper, William Rufus	Wheeling, W. Va.
Manon, Herve Clinton	Carothers
Matthews, Phillip Emmett	McKeesport
Meikle, Robert Dudley	Turtle Creek
Moore, Charles Albert	New Castle
Moore, Otis G.	Knox
Morris, Cary Bledsoe	Covesville, Va.
McCombs, Chalmer	Youngstown, O.
McConahy, John Glass	New Wilmington
McKnight, Harry Thomas	Pittsburgh
O'Donnell, Joseph B.	Altoona
Oleon, William	Pittsburgh
Patterson, William Abell	New Castle
Payne, Clyde Thomas	Wilmerding
Peters, Frederick Carl	North Warren
Reid, Ronald Macdonald	East Pittsburgh
Rink, Howard Cameron	Hoboken
Rivera, Damaso Ramon	Coamo, Porto Rico
Sissman, Joel	Pittsburgh
Smith, George Aten, Jr.	Pittsburgh
Smith, Fred Riley	Brilliant, O.
Speedy, Arthur William	Indiana
Speers, Stephen McClain	Speers
Stark, Lyda Arthur	Shinnston, W. Va.
Sutton, Walter Gardner	Greensburg
Wallace, William Marion	Ingram
Washabaugh, George Albion	Grove City
Willard, Logan Arthur	Apollo
Wolford, Edgar Wayne	Sigel

JUNIOR CLASS

Acton, George J.	Titusville
Anderson, George Preston	Mercer
Banks, Frank Ambrose	Kittanning
Barrett, Joseph Francis	Troy, N. Y.
Campbell, Hubert Lathrope	New Castle
Conlin, Earl	Duquesne
Desmond, Cornelius O'H.	Nauvoo
Dunn, William Andrew	Chester, W. Va.
Fast, Malden James	Fairchance
Fisher, Robert Brown	Greensburg

Frank, Hymen Abraham	New Castle
Frew, James Howard	Grove City
Getty, Gorman Eugene	Meyersdale
Glass, Benjamin F.	New Castle
Gregory, Alfred Logan	East Palestine, O.
Griffith, Robert Lysle	Homestead
Hammond, James Weston	Ford City
Harris, Clarence Sidney	Verona
Herron, Bernard Leonard	Monessen
Hilger, Edward Charles	Pittsburgh
Hoffman, Walter H.	Jeannette
Keiser, John Thomas	Mars
Kernohan, Roy Hugh	Homestead
Kirk, Russell Harrison	Pittsburgh
Kloetzer, Hanna	Asch, Bohemia
Leighner, Frank Raymond	Mars
Lewis, Carter Hamilton	Pittsburgh
Lichter, Samuel	Pittsburgh
Love, Walter Duncan	Falls Creek
Magee, Thomas Balph	New Castle
Marsh, J. Carey	New Bethlehem
Meisel, Emanuel George	Carrolltown
Metz, Harry Cameron	Williamsburg
McKinley, William Hilger	Pittsburgh
Newell, Albert Brown	Monongahela
Nicholls, Louis Harmon	Brackenridge
Nixon, Plummer Orville	Edmon
Overberger, Charles Edward	Patton
Painter, Loraine Leon	Grafton, W. Va.
Peiffer, Glenn Wilbur	Du Bois
Preiss, Lester Lewis	Grafton, W. Va.
Reese, Charles Schuler	Warren
Robison, Raymond Joseph	New Castle
Sanderson, Harvey LaMont	Butler
Scott, Horace Clayton	Pittsburgh
Schumaker, Claude Allen	Tarentum
Shonfield, Leo	Sheraden
Smith, Wayne Bowers	Punxsutawney
Speedy, Lisle	Indiana
Taylor, Howard Dewoody	Emlenton
VanKirk, Warren Hathaway	Pittsburgh
Wallace, Oren Wesley	New Brighton
Ward, Frederic Ferner	Oakmont
Weiland, George Wesley	Scranton
Weinmann, Gustav Raymond	Pittsburgh

Weiss, William Walter	Kane
Weller, Karl Frederic	McKeesport
Young, Alfred Clyde	Wilkinsburg

FRESHMAN CLASS

Alvin, Ernest Eugene	Pittsburgh
Ammons, Earl Fay	Arkansas City, Kans.
Arnowitz, Joseph	McKeesport
Balbach, Charles J.	Sharpsburg
Beane, Edgar Graham	Pittsburgh
Beattie, Purcell	Wheeling, W. Va.
Blumenthal, Robert John	Pittsburgh
Brackman, Albert Adam	Pittsburgh
Cain, Calvin Cedric	Pittsburgh
Calihan, Leonard Quaill	Braddock
Campbell, Frank Harold	Butler
Cleveland, Elmer Francis	Wilmerding
Coatsworth, Oran Colvin	Monongahela City
Coulter, William Barr	Ingram
Crawford, Ralph McNall	Oakdale
Crawford, Thomas C.	Blossburg
Dart, Earl E.	Greensburg
Diffenderfer, William Floyd	Butler
Earley, Joseph Reid	New Castle
Eckel, Harry James	Whitaker
Edgerton, Charles Harold	Oriskany Falls, N. Y.
Eisenhuth, Warren Vernon	Reynoldsville
Fawcett, Albert Edgar	Wilkinsburg
Fery, Pierre	Pittsburgh
Fickes, Ralph Hubert	Avonmore
Foster, John Regis	Homestead
Frazer, F. L.	Marion, Kansas
Garl, Floyd Reuben	Kent, Ohio
Giffin, Richard Glenn	Hickory
Gurley, Gabriel Francis	Pittsburgh
Heil, Roy Harrison	Topeka, Kansas
Hess, Wendell Holmes	Fairmont, W. Va.
Hodges, J. Milton	No. Warren
Hood, Frank Oliver	West Newton
Isenberg, John Spanogle	Mt. Union
Jameson, John Harold	Petrolia
Kopsofsky, Harry Sigmund	Braddock
Leathers, Harry Allison	Monessen

Lecher, Robert Binning	Nanticoke
Lynn, Wallace L.	Clintonville
McCaw, Homer W.	McKeesport
McChesney, Robert Clinton	Grove City
McDiarmid, William Henry Kohberger	Pittsburgh
McFate, Thomas Johnston	Slippery Rock
McGinley, Ralph James	Ellwood City
McGreevy, Gilbert Francis	Pittsburgh
McKelvey, Ralph Cameron	Beaver
McLaughlin, John Osman	Jamestown
McMaster, Louis	Sewickley
McNulty, Ray Marcellus	Carnegie
Martin, Donald Alton	Indiana, Pa.
Merkle, Clarence Simon Paul	Pittsburgh
Minton, Paul Bradley	Canonsburg
Mitchell, Charles David	Mahaffey
Morgan, Ralph E.	Jeannette
Needham, James Gregory	Scranton
Norris, George William	Edgewood Park
Norris, James Franklin	Pittsburgh
Oliver, Frank Roll	Duquesne
Park, W. Earl	Sigel
Ratajczyk, Victor James	Pittsburgh
Richardson, Perley Hamilton	Oil City
Riley, Francis Regis	Carnegie
Ryan, Hugh James	Du Bois
Sankey, William Elder	New Castle
Schnurer, Deborah	Pittsburgh
Schuyler, Clyde Henry	Randolph, N. Y.
Sedwick, Hiram Jobe	Kittanning
Shaver, William Harrison	Kimmelton
Shaw, Lawrence A.	Pittsburgh
Shellenberger, Delmar Alvin	Farrell
Smith, Merrill Leigh	Centreville
Swanson, Fred Harland	Youngstown, O.
Swartz, Howard Elmer	Wilmerding
Urey, D'Orr Voltaire	Mercer
Vogt, Joseph Bernard	East Pittsburgh
Walker, Robert Emery Pattison	Wilmerding
Walters, Clair DeWitt	Meadville
Walter, Charles Weller	Rockwood
Walthour, Frank Philip	McDonald
Weightman, Edmund Lanclett	Greensburg
Wilson, Howard Russell	Carnegie
Zeigler, Floyd C.	Pittsburgh

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The Dental Alumni Association holds its annual meeting on the day preceding Commencement Day, in the Amphitheatre of the College.

Histology Laboratory

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University of Pittsburgh Bulletin

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OFFICIAL:—Including the Chancellor's Report, News Bulletins, Etc.

GENERAL:—Including papers of general interest.

For copies of any of the above, address the Secretary, University of Pittsburgh, or the school concerned.